

ABSTRACT

An ion source using a corona discharge for ionizing a sample at high efficient is provided. In the corona discharge generated at a tip end of a needle electrode by application of high voltage thereto, the direction in which the sample is introduced to
5 the region of corona discharge and the direction in which ions are drawn out of the corona discharge region are substantially opposed to each other to improve the efficiency of ionization and to maintain a stable discharge for a long period of time.